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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,082	03/31/2004	Edward K. Y. Jung	0104-003-002-000000	9452

7590 08/14/2007
SEARETE LLC
1756 114TH AVENUE S.E.
SUITE 110
BELLEVUE, WA 98004

EXAMINER

HUYNH, NAM TRUNG

ART UNIT	PAPER NUMBER
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2617

MAIL DATE	DELIVERY MODE
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08/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/816,082	Applicant(s) JUNG ET AL.	
	Examiner Nam Huynh	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/12/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 6/14/2007. Of the previously presented claims 1-26, no amendments were made.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4, 9, 12, 13, 15, 20, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kung et al. (US 2005/0021724) (hereinafter Kung).

Regarding claim 1, 12, 23, Kung discloses a method and systems for operating a logical sensor network (title). In the scope of the invention, a sensor network comprises one or more nodes with one or more resources (page 3, paragraph 35). Kung teaches that the nodes may be a "mote" or "Smart Dust" (page 2, paragraph 27) that upon activation, determines the resource, or resources available to it, and broadcasts (transmitting) to one or more other nodes or the entire network (mote-addressed) announcing its role or capabilities (content indexes) (page 3, paragraphs 41-43).

Regarding claims 2 and 13, Kung teaches that the node may broadcast to the network a message indicating that it has associated (control) with a resource, such as a microphone, within its proximity (page 3, paragraph 43).

Regarding claims 4, 9, 15, and 20, Kung teaches that the node may forward data (reporting entity) available from a resource to a requesting node (query) (page 3, paragraph 45).

Regarding claim 24, the limitations are rejected as applied to claims 1 and 4.

Regarding claims 25 and 26, Kung teaches that the sensor interface allows the sensor to communicate information to (transmit) or receive information from processor (page 2, paragraph 31).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 3, 5-8, 14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 2005/0021724) (hereinafter Kung) in view of Ferri et al. (US 2005/0275532) (hereinafter Ferri).

Regarding claims 3, and 14, Kung discloses the limitations set forth in claim 1, but does not explicitly disclose transmitting one or more mote-addressed content indexes further comprises transmitting at least a part of a mote-addressed routing/spatial index. Ferri discloses a wireless sensor network (title). In the scope of the invention, a mote network comprises a plurality of motes for sensing environmental changes and communicating data and a virtual network (figure 1, items 12-14). The virtual network includes a distributed routing map (routing/spatial index) that is distributed amongst the motes and periodically updated with an update system (page 2, paragraph 18). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Kung, to include a virtual network that distributes a routing map, as taught by Ferri, in order to re-route data using other available motes if a mote loses the ability to relay data, thus providing network resiliency.

Regarding claims 5-7, 16-18, Ferri teaches that the routing map is broadcast periodically, or according to a schedule (page 2, paragraph 19).

Regarding claims 8 and 19, Ferri teaches that the routing table is created using a "pre-active heartbeat" algorithm, which causes motes to gather their neighboring motes into the network until they are all gathered (page 2, paragraph 25; 26). The Examiner interprets this gathering as querying.

Art Unit: 2617

6. Claims 10, 11, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 2005/0021724) (hereinafter Kung) in view of McNeil (US 2003/0172221).

Kung discloses the limitations set forth in claim 1, but does not explicitly disclose that the data stored in the field device is encrypted utilizing a public or private key. McNeil discloses a mote that is provided within a software-latticed networked topology in which data and software programs stored within a mote can be kept secure (abstract). Encryption and public or private keys are readily known in the art to provide security for data, which is taught by McNeil. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the field device of Kung, to implement security for the data stored in the field device, as taught by McNeil, in order to prevent against damage, tampering, computer viruses, software piracy, unauthorized access from external agents, and other misuse to the data.

Response to Arguments

7. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

Art Unit: 2617

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NTH
8/7/07


GEORGE ENG
SUPERVISORY PATENT EXAMINER